June 30, 2006

13707 Colgate Way
Apartment 1237
Silver Spring, MD 20904

Minerals Management Service
381 Elden Street, Mail Stop 4042
Herndon, VA 20164

Subject: Comments on the Notice of Intent to Prepare an EIS on the Cape Wind Project: Discussion of Potential Air Quality Benefits

In response to the Notice of Intent to prepare an Environmental Impact Statement and invitation for written scoping comments published in the Federal Register on May 30, 2006, I have briefly summarized some of the beneficial effects the Cape Wind project in Nantucket Sound could have on the region's air quality. Please consider these benefits when preparing the draft impact statement.

Traditional power plants generating electricity through the use of fossil fuels contribute large quantities of pollutants to the atmosphere, which can cause numerous environmental and health effects. Replacing electricity generated from fossil fuels with renewable energy, such as the proposed wind farm, will help to diminish the amount of pollutants in the air, thereby reducing negative effects.

Environmental Issues

According to the Draft Environmental Impact Statement prepared by the Army Corp of Engineers in 2004 for the Cape Wind project, emissions of several known air pollutants will be reduced if the wind turbines are installed and used to replace fossil fuel generated energy in the electrical grid (Table 1) [1].

Table 1. Estimated reductions, in tons per year, for the Cape Wind Project[1]

CO_2	1,108,039	NO_x	1,415	CO	1,396
SO_2	4,606	PM	177	VOC	44

By creating these reductions, Cape Wind has the potential to reduce the environmental effects caused by air pollutants released by power plants. Such benefits may include, but are not limited to, the following:

- Reduction in greenhouse gases (i.e. carbon dioxide, nitrogen oxide) that may cause global climate change. Potential effects of climate change are projected to include increasing sea levels, changes in precipitation, and expansion or reduction in the ranges of ecosystems[2].
- Decreased acid deposition, or acid rain, which is caused by sulfur dioxide and nitrogen oxides[3]. Acid rain can have negative effects on aquatic ecosystems, forests, materials, and visibility[4].

Health Effects

Increasing air quality by replacing traditional power generation with wind farms may also result in less health problems in regions where power plant emissions are reduced. Respiratory problems have been linked to exposure to nitrogen dioxide, sulfur dioxide, and particulate matter[5]. In addition, volatile organic compounds are believed to cause various health effects such as cancer and damage to organs[6]. Reduced pollution not only can improve the quality of human health, but also, may have beneficial economic impacts by reducing health costs. It is estimated that a potential savings of over $53 million may be realized in health care costs annually as a result of the construction of the wind farm[1].

Atmospheric pollution caused by traditional power plants must be reduced to avoid further environmental and health issues in a time where energy demands continue to increase. Power produced through wind farms reduce pollutants released into the atmosphere, as wind turbines have zero emissions during operation[7]. Any emissions related to the mobile sources used during the construction, maintenance, and decommissioning[1] of the turbines is minute in comparison to emissions from power plants utilizing fossil fuels. Therefore, in regards to increasing the air quality, I believe that wind farms, such as the Cape Wind project, are a feasible alternative to fossil fuel generated energy.

Thank you for your time and consideration.

Sincerely,

Julie Twardowski

References

1Cape Wind Energy Project Draft Environmental Impact Statement
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http://www.epa.gov/airmarkets/acidrain/index.html
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